



# 4

PATENT

Attorney Docket No. 213201-00051

GP/1743  
\$IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Loong-Tak LIM, et al.

Serial No.: 09/940,518

Filed: August 29, 2001

Title: METHOD AND DEVICE FOR  
TESTING ALDEHYDE IN POLYESTER  
POLYMER

Examiner: Not Assigned

Group Art Unit 1743

October 23, 2002

Commissioner for Patents and Trademarks  
Washington, D.C. 20231

RECEIVED

OCT 28 2002

TC 1700

**Attention: Special Program Examiner GAU**PETITION TO MAKE SPECIAL PURSUANT TO 37 CFR 1.102

Dear Sir:

Applicants respectfully petition the Commissioner to advance examination of this application pursuant to the provisions of 37 CFR 1.102(d) and MPEP 708.02. Accompanying this Petition are the following:

- Information Disclosure Statement;
- Form PTO 1449 and a copy of each reference cited therein; and
- Preliminary Amendment.

(A) The appropriate fee for a Petition to Make Special in accordance with 37

CFR 1.17(h) in the amount of \$130 should be charged to Deposit Account No. 50-1710. Should

10/25/2002 AOSMAN1 00000093 501710 09940518

01 FC:1460 130.00 CH

the Commissioner determine that an additional fee is due, he is hereby authorized to charge said fee to Deposit Account No. 50-1710.

(B) Applicants have enclosed a Preliminary Amendment to focus examination on a presently preferred embodiment of the invention. If the Examiner believes that the pending claims are directed to more than one invention, Applicants hereby agree to elect claims directed to a single invention, without traverse.

(C) A pre-examination search was conducted, which uncovered the following U.S. patents:

U.S. Patent 4,511,658

U.S. Patent 5,128,171

U.S. Patent 3,645,696

U.S. Patent 3,784,358

U.S. Patent 4,438,206

The above patents are discussed on page 4 of the specification of the above referenced patent application.

(D) Copies of the references found in the pre-examination search are being submitted with an attached Information Disclosure Statement and are listed on the attached PTO 1449 form.

(E) A discussion of the documents listed on the attached PTO 1449 form is provided below:

U.S. Patent No. 5,128,171 issued to Gleisner on July 7, 1992 relates to a test strip for the detection of a predetermined substance in a fluid. This test strip is stable to storage and accelerated test conditions and comprises a support having a reagent layer, wherein the reagent

layer contains a dialyzed latex polymer and a reagent detection system which reacts with the substance to provide a detectable change.

However, U.S. Patent No. 5,128,171 teaches a test strip that comprises a support and a reagent layer consisting of MBTH and other compounds. A dialyzed polymer is used in the reagent layer to increase the length of time that the test strip maintains its integrity as compared to using an undialyzed polymer. While the test strip may be suitable for testing liquid samples, its use in testing aldehyde in air may be less effective, because the aldehyde needs to permeate into the latex matrix and react with the reagents contained therein.

Therefore, the test strip of U.S. Patent No. 5,128,171 is not well-suited for use in a method for making an indicator for testing aldehyde in polymer, or in a method for making an indicator for testing acetaldehyde in polyester polymer.

U.S. Patent No. 4,511,658 issued to Lambert, et al. on April 16, 1985 relates to a sensitive colorimetric detector for formaldehyde vapor is prepared by applying a ketone solution of 4-amino-3-hydrazino-5-mercapto-1,2,4-triazole (AHMT) to a support coated with a stable metal bicarbonate to form a compound from which the ketone can be displaced by formaldehyde to yield a chromogen developing a purple color proportional to the amount of formaldehyde. The detector is sensitive to gaseous formaldehyde in air at concentrations below 2 ppm.

U.S. Patent No. 4,511,658 teaches that the colorimetric detector is highly selective to formaldehyde, and its use for testing other aldehydes, including acetaldehyde, is precluded.

Therefore, the colorimetric detector of U.S. Patent No. 4,511,658 is not well-suited for use in a method for making an indicator for testing aldehyde in polymer, or in a method for making an indicator for testing acetaldehyde in polyester polymer.

U.S. Patent No. 4,438,206 issued to Nakajima, et al. on March 20, 1984 relates to a method of formaldehyde determination by measuring the fluorescence of a fluorescent substance formed by allowing a formaldehyde-containing solution to react with a reagent capable of forming said fluorescent substance from formaldehyde, the improvement comprising measuring the fluorescence in the presence of a serum albumin.

U.S. Patent No. 4,438,206 teaches that the method of measuring in the presence of serum albumin is used to improve the test sensitivity of acetylacetone. However, enhancement of fluorescence intensity by addition of serum albumin is achievable only in the reaction of acetylacetone with formaldehyde, not acetaldehyde.

Therefore, the formaldehyde determination method of U.S. Patent No. 4,438,206 is not well-suited for use in a method for making an indicator for testing aldehyde in polymer, or in a method for making an indicator for testing acetaldehyde in polyester polymer.

U.S. Patent No. 3,784,358 issued to Drake, Jr. on January 8, 1974 relates to an improved supporting medium for a chromogenic reagent for use in an aldehyde detection test. The chromogenic reagent, preferably 3-methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate (MBTH), is absorbed on a porous polymeric material. The preferred polymeric supporting medium is a film of porous polyethylene. The chromogenic reagent supported on the porous polymer finds particular utility in a test for determining the presence of glycol in engine oil.

U.S. Patent No. 3,784,358 teaches an aldehyde detection test that is intended for testing aldehydes in oil and/or liquid media. It is not optimal for testing acetaldehyde in air. Further, when a transmission measurement of the colored solution is used for achieving the

desired test sensitivity, the chromagen formed on the solid support tends not to dissolve easily in the oxidizing solution.

Therefore, the aldehyde detection test of U.S. Patent No. 3,784,358 is not well-suited for use in a method for making an indicator for testing aldehyde in polymer, or in a method for making an indicator for testing acetaldehyde in polyester polymer.

U.S. Patent No. 3,645,696 issued to Iannacone et al. on February 29, 1972 relates to a chromogenic reagent normally unstable upon exposure to air is stabilized for use in an aldehyde detection test. The chromogenic reagent, preferably 3-methyl-2-benzothiazolinone hydrazone hydrochloride monohydrate (MBTH), is prepared by adsorption on a suitable supporting media and drying in an inert atmosphere.

U.S. Patent No. 3,645,696 teaches an aldehyde detection test that is intended for testing aldehydes in oil and/or liquid media. It is not optimal for testing for aldehydes in air. Further, when a transmission measurement of the colored solution is used for achieving the desired test sensitivity, the chromagen formed on the solid support tends not to dissolve easily in the oxidizing solution.

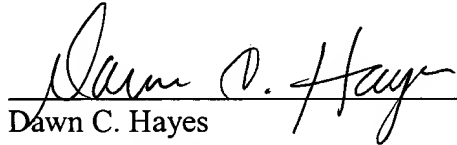
Therefore, the chromogenic reagent of U.S. Patent No. 3,645,696 is not well-suited for use in a method for making an indicator for testing aldehyde in polymer, or in a method for making an indicator for testing acetaldehyde in polyester polymer

**CONCLUSION**

It is respectfully requested that examination of the application be advanced in accordance with the provisions of 37 CFR 1.102 and MPEP 708.02.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 625-3500. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

A handwritten signature in cursive script, reading "Dawn C. Hayes", is written over a horizontal line.

Dawn C. Hayes  
Attorney for Applicants  
Registration No. 44,751

Patent Administrator  
KATTEN MUCHIN ZAVIS ROSENMAN  
525 West Monroe Street, Suite 1600  
Chicago, Illinois 60661-3693  
Facsimile: (312) 902-1061